

REMARKS

Claims 1 and 25-45 are pending, with claim 1 being independent. The abstract has been amended. Claim 1 has been amended. Support for the amendments may be found throughout the application, including, for example, Figs. 1 and 2, and page 6 of the specification. No new matter has been introduced.

Independent claim 1 recites a branching device for at least one electric line. The branching device includes a housing and at least one electrically conducting wire terminal that provides a branching contact and is accommodated in a holder and includes contact lips with cutting edges for cutting through insulation of a wire to be connected to the wire terminal. The wire terminal also includes at least one connecting lug which protrudes above the holder and a through-channel for the uninterrupted passage of the wire. At least one of the contact lips is located diagonally to the through-channel so that the tip of the edge of the contact lip protrudes into the through-channel. At least one of the contact lips is flexible in a direction pointing away from the through-channel. At least one holding-down clamp holds the wires in the through-channel of the wire terminal. The holding-down clamp exhibits a transverse plate that closes off the through-channel and has an opening through which the connecting lug of the wire terminal protrudes.

Claims 1, 25-40 and 43-45 have been rejected as being obvious over U.S. Patent No. 6,019,627 (Embo) in view of U.S. Patent No. 5,257,945 (Heng). Claims 41¹ and 42 have been rejected as obvious further in view of U.S. Patent No. 6,071,145 (Toly). Applicant requests withdrawal of these rejections because any proper combination of Embo, Heng, and Toly would still fail to describe or suggest “at least one holding-down clamp [that] holds the wires in the through-channel of the wire terminals” and “exhibits a transverse plate that closes off the through-channel and has an opening through which the connecting lug of the wire terminal protrudes,” where the connecting lug “protrudes above the holder,” as recited by amended claim 1.

¹ The office action states that “Claims 42 and 43 are rejected...further in view of Toly.” In view of the totality of the rejection, Applicant believes that the office action is correctly read as applying the Toly reference to claims 41 and 42.

Embo is directed to a plug connector with a lower part and a cover including a number of insulation displacement contacts (IDCs). *See Fig. 1, numbers 1 and 3; Fig. 2, number 8.* The IDCs are used for inserting at least one conductor of a cable, *See Fig. 1, numbers 6 and 7,* and are seen to be included in pairs with a slot and fork limbs 11. *See Fig. 3, numbers 8, 10, and 11.* The slot and fork limbs 11 are used to cut into the insulation and to make a contact with the IDC contacts. *See column 5, lines 25-30.* In the IDCs, a connection between the housing cover 3 and the lower part 1 is produced by two screws 19 and 20. Furthermore, the “conductors 6 are pressed into the IDC contacts 8 and make contact with the IDC contacts, by the underneath of the cover 3, as a result of the screws 19, 20 being screwed in and tightened.” *See column 6, lines 10-23.*

The office action, on page 6, states :

Embo discloses at least one holding-down clamp (defined by 13 and 5) which holds the wires in the through-channel (at 10) of the wires terminals (each defined by 9 and 4) and which exhibits a transverse plate (not shown, underside of Figure 1)...

Neither the plug body 5 nor the guides 13 in Embo disclose or suggest “at least one holding-down clamp holds the wires in the through-channel of the wire terminals” and “exhibits a transverse plate that closes off the through-channel and has an opening through which the connecting lug of the wire terminal protrudes,” where the connecting lug “protrudes above the holder,” as recited by amended claim 1. In addressing this point, the response will first discuss the deficiencies of the plug body 5 in terms of the claim language, and similarly, will then discuss the deficiencies of the guides 13.

In Embo, element 5 is a plug body, and is not seen to provide for a holding-down clamp with a transverse plate. The individual conductors 6 are shown as placed in the guides 13 substantially perpendicular to the plug body. In fact, the individual conductors 6 are not seen to directly contact the plug body 5. Therefore, the plug body 5 cannot hold the wires in the through-channel as claimed.²

Next, as opposed to a holding-down clamp, element 13 corresponds to guides for controlling where conductors come to rest. See column 5, lines 10-15 and 44-48. The guides 13

² In understanding the rejection, applicant considers the possibility that the office action is suggesting a wire outside the IDC held by the plug body 5 as reading on the claim. However, applicant notes that an outside wire would not read on the other limitations of claim 1 antecedent to “the wire.”

do not clamp or use a transverse plate. Instead of using a holding-down clamp as claimed, Embo contains the conductor 6 using screws 19 and 20 to press the conductor 6 into the contacts 8 by connecting the lower part 3 and the cover 1. *See* column 6, lines 10-23.

The office action disregards the claimed differentiation between a "holding-down clamp" and a "through-channel." Specifically, as best understood, the office action first states that the guide 13 discloses both the holding-down clamp and the through channel, and then argues that element 13 defines "a unit that forms a holding-down clamp with respect to the housing 3." See office action, pages 2 and 6. The claim language recites both a feature of a through-channel and a feature of a holding-down clamp holding the wires in the through-channel. While elements of Embo may describe a channel for the conductor 6, Embo does not describe or suggest a holding-down clamp for such a channel.

Also, the office action suggests that a plate on the underside of Fig. 1 closes off the through channel from the exterior. Applicant notes that the claim language includes a transverse plate that *closes off the through-channel* and is *exhibited by the holding-down clamp*, and the IDC's housing, as suggested, is not exhibited by a holding-down clamp and does not close off the through-channel as claimed. In particular, the office action states that the through channel is disclosed by the guide 13, and nowhere is a transverse plate seen to close off the guide 13.

Further, the plug contacts 4 do not protrude above a holder as claimed. Specifically, the office action states that the holder is disclosed by the reinforcing ribs 16 and the connecting lug is disclosed by the plug contacts 4. The claim language recites that the connecting lugs protrude "above the holder." In Embo, the plug contacts 4 do not protrude above the reinforcing ribs 16.

Embo further fails to disclose or suggest that at least one of the contact lips is located diagonally to the through-channel so that the tip of the edge of the contact lip protrudes into the through-channel. This point is acknowledged through the office action's reliance on Heng, and the office action's statement that "Embo discloses substantially the claimed invention except for the contact lips being located diagonally to the through-channel." See office action page 3, paragraph 2.

Heng is directed to a connection terminal with a single slotted connection unit. *See* Fig. 1, number 102. The unit includes two slots or slits at opposite ends for retaining and stripping a wire. *See* Fig. 1, numbers 5 and 6. Corresponding to the slot or slit, a first flared opening with

sharp sloping edges for a first wire section is used for stripping a wire. *See Fig. 2-3*, numbers 5A, 20 and 21. There are also two opposite support sides, each of which is essentially a plane and carries two respective other sides that slope obliquely away from each other, with the six sides defining a hollow convex hexagonal shape of the connection unit. *See Fig. 1*, numbers 7, 8, and 9-12. Neither the connection unit nor the connection terminal in its entirety, includes the recited holding-down clamp, transverse plate, or connecting lug as claimed, nor does the office action contend that they do so.

Consequently, Heng does not disclose or suggest “at least one holding-down clamp [that] holds the wires in the through-channel of the wire terminals” and “exhibits a transverse plate that closes off the through-channel and has an opening through which the connecting lug of the wire terminal protrudes,” where the connecting lug “protrudes above the holder,” as recited by amended claim 1.

Toly does not correct these deficiencies of Embo and Heng, nor does the office action contend that it does so. Accordingly, any possible combination of Embo, Heng, or Toly would still fail to describe or suggest “at least one holding-down clamp [that] holds the wires in the through-channel of the wire terminals” which “exhibits a transverse plate that closes off the through-channel and has an opening through which the connecting lug of the wire terminal protrudes,” where the connecting lug “protrudes above the holder,” and withdrawal of the rejections is hereby requested.

All claims are in condition for allowance.

Applicant : Gerd Hofmann et al.
Serial No. : 10/518,907
Filed : October 21, 2005
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Attorney's Docket No.: 08215-580US1 / CEA-026565-
PCT

The fee in the amount of \$120.00 in payment of the one months extension fee is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 1/24/07



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